

## COURSE OUTLINE

The following is a tentative course outline. The instructor might modify the outline if required to modify instruction.

Module Topic	Materials to Read and Review	Assignments
<p><b>M1 – Review of Standards</b> – LO1: Review of TEKS (mathematics domain) and teaching mathematics to young children.</p>	<ul style="list-style-type: none"> <li>• How to create objectives and learning activities?</li> <li>• Standards to use in this module</li> <li>• Elementary Math TEKS</li> <li>• Technology Standards</li> <li>• Assessments connected to objectives/standards</li> </ul> <p>And other notes/resources</p>	<p><b>Module 1 Assignment #1</b>  <b>Module 1 Assignment #2</b></p> <p><b>(25 points each)</b></p>
<p><b>M2 – Mathematical Learning Foundations (Young Learners) (Includes Assessment, Using Assignments)</b> – LO2: Foundational characteristic and processes in children’s mathematical development</p>	<ul style="list-style-type: none"> <li>• How do young students learn mathematics?</li> <li>• Youtube video: Why Early Childhood is the Right Time to Start Learning</li> <li>• Articles</li> </ul> <p>And other notes/resources</p>	<p><b>Module 2 Assignment</b></p> <p><b>(25 points)</b></p>
<p><b>M3 – Strategies/activities in teaching mathematics to young children – Pre-Field Content Knowledge / Differentiation</b> – LO3: Developmentally appropriate strategies and activities in teaching mathematics to young children</p>	<ul style="list-style-type: none"> <li>• Teacher Centered v/s Learner Centered</li> <li>• Math content</li> <li>• Articles</li> </ul> <p>And other notes/resources</p>	<p><b>Module 3 Assignment</b></p> <p><b>(25 points)</b></p>



Module Topic	Materials to Read and Review	Assignments
<b>M4 – Student Engagement &amp; Instructional Resources (Include Learning Environment) – LO4 &amp; LO5:</b> Instructional Resources, tools, and materials to teach mathematics to young children & Building children’s interest to learn mathematics	<ul style="list-style-type: none"><li>• Technology in Elementary classrooms</li><li>• Hands on activities</li><li>• Manipulative used in instruction</li><li>• Technology Resources</li><li>• Virtual Manipulatives</li><li>• Articles</li></ul> And other notes/resources	<b>Module 4 Assignment</b> <b>(25 points)</b>
<b>M5 – Developing Mathematical Thinkers –</b> LO6 & LO7: Promote children’s mathematical problem solving and reasoning skills. Develop students to become competent mathematical thinkers.	<ul style="list-style-type: none"><li>• Problem Solving</li><li>• Articles</li><li>• Youtube Video: Project-Based Learning in an Actual Classroom</li></ul> And other notes/resources	<b>Module 5 Assignment</b> <b>(25 points)</b>
<b>M6 – Integrated Learning –</b> LO8 & LO9: Integrating mathematical content with other areas of the curriculum, everyday activities, and financial literacy.	<ul style="list-style-type: none"><li>• Mathematics and Other Subjects</li><li>• Effects of Collaboration in mathematics learning</li><li>• Link to Elementary ELAR TEKS</li><li>• Link to Elementary Science TEKS</li><li>• Link to Elementary Social Studies TEKS</li><li>• Articles</li><li>• And other notes/resources</li></ul>	<b>Module 6 Assignment</b> <b>(25 points)</b>
<b>M7 – Professional Collaboration / Students’ Background Knowledge (Families) Include research (prior knowledge, ...) –</b>	<ul style="list-style-type: none"><li>• Co-Teaching: How does it work?</li><li>• Professional Learning Communities</li></ul>	<b>Module 7 Assignment</b> <b>(25 points)</b>



LO10: Collaboration with professionals and families to promote students' mathematical development.	<ul style="list-style-type: none"> <li>• Bringing Parents/Community into your classroom</li> <li>• Role of Professional Development</li> <li>• Research Based Instructional Strategies</li> <li>• And other notes/resources</li> </ul>	
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Module Topic	Materials to Read and Review	Assignments
<b>FINAL PROJECT MODULE – VERTICAL ALIGNMENT PLAN</b>  <b>200 points</b>	Project Instruction in D2L module	<b>REQUIRED ASSIGNMENT:</b> <ul style="list-style-type: none"> <li>• <b>Create a vertical alignment lesson plan.</b></li> <li>• <b>Submit the assignment in the corresponding Dropbox in D2L.</b></li> </ul>

Module Topic	Materials to Read and Review	Assignments
<b>Field Module – Field Hours (TK20) and Assignments related to three observations</b>  <b>300 points</b>	<b>Instruction Video, Notes, and other resources in the module.</b>	<ul style="list-style-type: none"> <li>• Pre-conference – Via zoom or in-person</li> </ul> <p>Submit the following BEFORE pre-conference observation:</p> <ul style="list-style-type: none"> <li>• <b>OBSERVATION LESSON PLAN</b> Include all the documents and links related to the lesson plan in D2L.</li> </ul> <p>Teaching</p> <ul style="list-style-type: none"> <li>• <b>CLASSROOM TEACHING OBSERVATION</b> Video (DUE 11:30 pm on the day of teaching).</li> <li>• <b>TEACHING REFLECTION</b> - DUE 11:30 On the day of teaching.</li> </ul>



		<ul style="list-style-type: none"><li>• TECHNOLOGY INTEGRATION Critique (DUE 11:30 the day AFTER teaching).</li><li>• FINAL LESSON PLAN (you will have opportunity to revise and resubmit the final lesson plan)</li><li>• Post-conference – Via zoom or in-person</li><li>• Upload all documentation- feedback form and reflection on TK20 AFTER ALL signatures</li></ul>
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